Remarks

The Applicants have amended the Specification to correct minor grammatical errors. No new matter has been added.

The Applicants acknowledge the objection to Claims 4 - 18 and have accordingly amended them to remove the improper multiple dependencies. Examination on the merits is respectfully requested.

Main Claim 1 has been amended to recite that the base body reciprocates repetitively and periodically. It also now recites that the remaining fiber bundle between the rollers does not receive pressure in the non-contact state.

Turning now to the merits, the Applicants acknowledge the rejection of Claims 1 - 3 under 35 U.S.C. §102 as being anticipated by EP '266 (Yamamoto), EP '420 (Nakagawa) and Akase. The Applicants respectfully submit that all three publications fail to disclose, either implicitly or explicitly, the invention as recited in Claims 1 - 3.

Yamamoto discloses a process for spreading a continuous fiber bundle comprising passing the continuous bundle around one or two or more freely rotatable rollers under tension to continuously spread the fiber bundle into fibers, the spreading being assisted by vibrating at least one of the rollers. This is described on page 2 at lines 35 - 37 of Yamamoto. A mechanism for passing the continuous bundle around one or two or more freely rotatable rollers under tension comprises a tension adjusting device 13 in Fig. 1 of Yamamoto.

A mechanism for vibrating is not clearly explained in Yamamoto. However, it appears that the mechanism comprises spring-like elements provided on the top of an apparatus 21 in Fig. 1, a first arm-like element connected to the spring-like elements at both ends of the first arm-like

element and a second arm-like element connecting the center of the first arm-like element and a freely rotatable roller 17.

From that disclosure of such mechanisms, one of ordinary skill in the art understands that keeping the bundle passing through the vibrating roller 17 under tension means that the bundle passing through the vibrating roller 17 is always in contact with the surface thereof.

In sharp contrast, in Claims 1 - 3, a reciprocating base body is brought into contact with and kept away from the running fiber bundle. The bundle passing through the reciprocating base body is not always in contact with the base body and is at times in a non-contact state. Yamamoto does not teach or suggest a non-contact state of the vibrating roller 17. Accordingly, the Applicants respectfully submit that Yamamoto is inapplicable to Claims 1 - 3 and respectfully request withdrawal of the rejection based on Yamamoto.

Nakagawa discloses a fiber separator provided with a separating composite roller 20 composed of four roller elements 20b. Each of the roller elements 20b has a bulging thick-center profile in the axis direction. In the fiber separator, a fiber bundle 3 is forced to contact the separating composite roller 20 intermittently while it is running and the separating composite roller 20 is rotating. In particular, the fibers are forced to alternately contact each of the roller elements 20b sequentially. This is disclosed in Column 4 at lines 20 - 27.

The fiber bundle 3 is forcibly separated into individual fibers at a bulging surface of each of the roller elements 20b in such a manner that the fiber bundle is flattened along the bulging surface with a separation width W as shown in Fig. 1. This is described in Column 4 at lines 28 - 33.

From the disclosure of such technical concept, it is clearly understood by those of ordinary skill in the art that the separation of the fiber bundle into the individual fibers in

Nakagawa is brought by the bulging surface. It, therefore, can be understood that the fiber bundle 3 passing between the grooved guide rollers 19 and the fixed rollers 21 always contact at least one of the roller elements 20b for subjecting to a separation brought by the bulging surface.

On the other hand, Nakagawa does not disclose vibration of the fiber bundle 3. Nakagawa simply does not teach or suggest the technical concept of separation of a fiber bundle based on vibration.

In sharp contrast to Nakagawa, in Claims 1 - 3, a reciprocating base body is brought into contact with and kept away from the running fiber bundle. The bundle passing through the reciprocating base body is not always in contact with the base body and is at times in a non-contact state. During the non-contact state, the fiber bundle running between the rollers does not receive pressure from the base body. Such a non-contact state of the roller elements 20b of Nakagawa is not taught or suggested. Accordingly, the Applicants respectfully submit that Nakagawa is inapplicable to Claims 1 - 3 and respectfully request withdrawal of the rejection based on Nakagawa.

Akase discloses a method and apparatus for opening (spreading) a fiber bundle which comprises vibrating at least one of the plurality of rolls in the axial direction of the roll. This is described in Column 3 at lines 53 - 53.

It is clear that the moving direction of the roll is in the axial direction of the roll. The fiber bundle, therefore, is always in contact with the roll vibrated in the axial direction thereof to spread the fiber bundle. The moving direction of the roll in Akase is far different from the moving direction of the base body in Claims 1 - 3. In Claims 1 - 3, the base body moves relative to a fiber bundle to bring it into contact with and be kept away from the fiber bundle.

The bundle passing through the reciprocating base body is not always in contact with the base body and is at times in a non-contact state. Such a non-contact state of the vibrating roller 5a (5b) in Akase is not taught or suggested therein. Accordingly, the Applicants respectfully submit that Akase is inapplicable to Claims 1 - 3 and respectfully request withdrawal of the rejection based on Akase.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

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